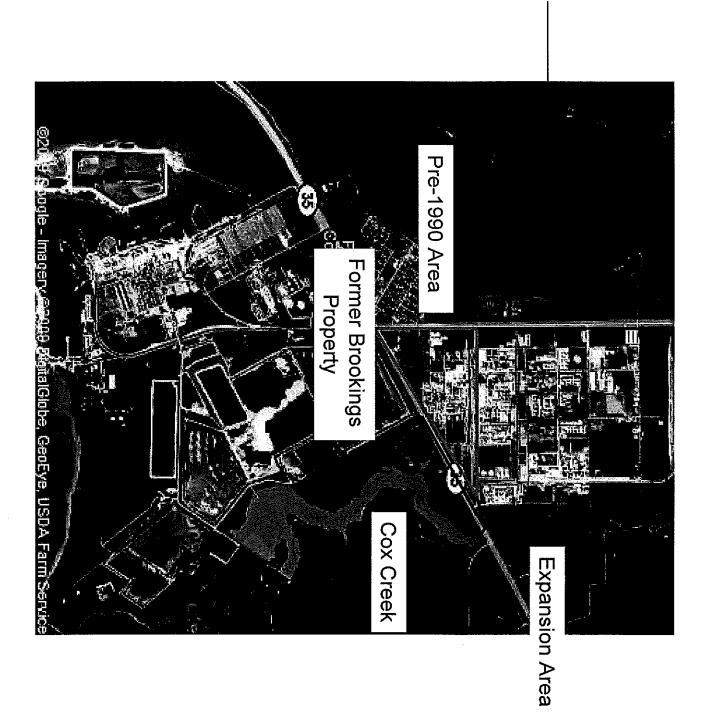
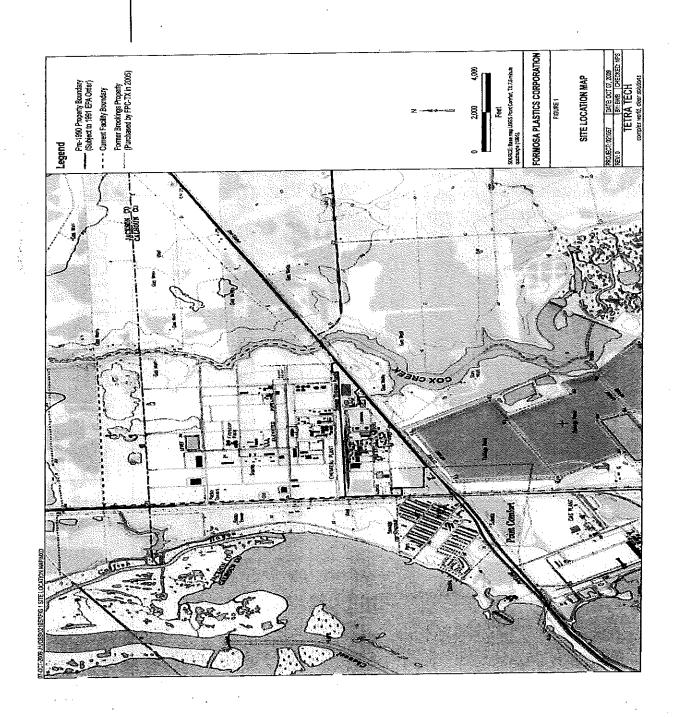
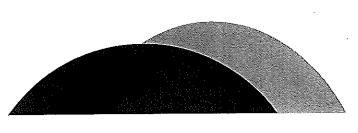
the - Inspection 5/26/10 - Luggestion · Worker safety - passive deserneters Title V - facility cleauphin => 12 peimits. Theatment flicility - ask Marcia about no primit for treating www pludges Paul Jewes, Pale Hrush, Chuck baines, Aancy Fager,

Formosa Plastics Corporation

Point Comfort, Texas

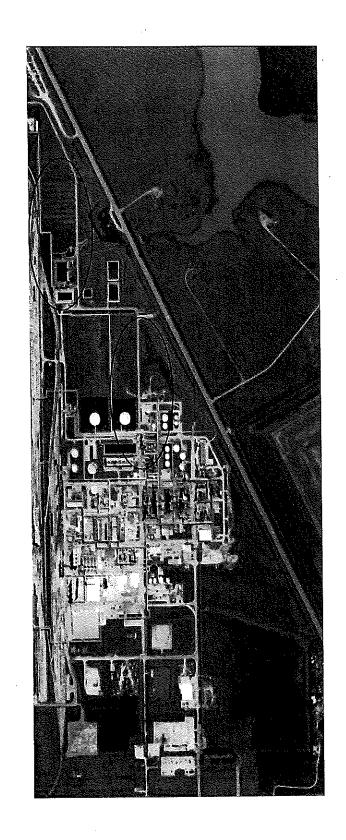


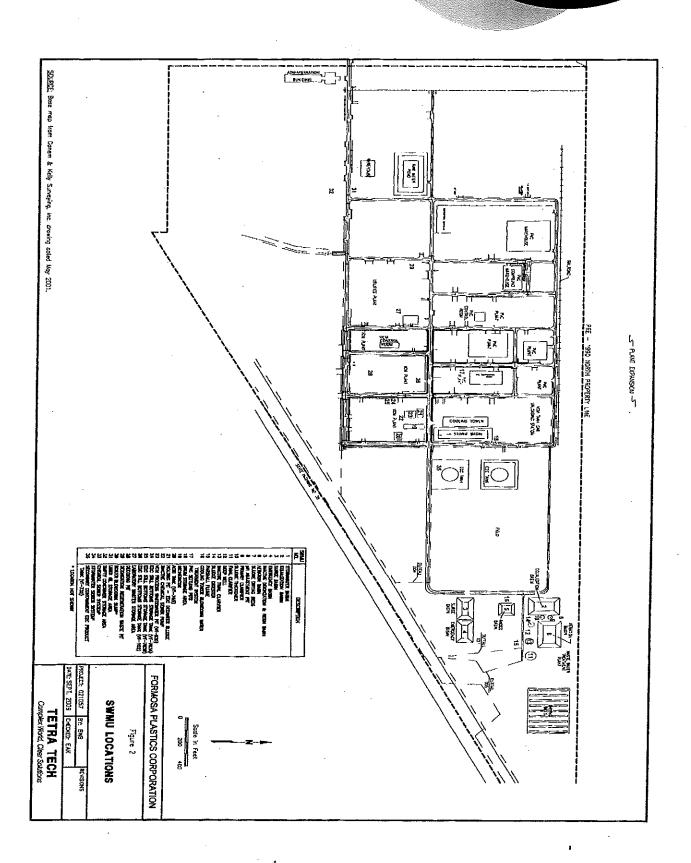




1991 Consent Decree

- o Areas
 - Wastewater Treatment Plant
 - Stormwater Detention Pond
- o COCs:
 - Ethylene dichloride
 - Vinyl chloride monomers





Current Activities

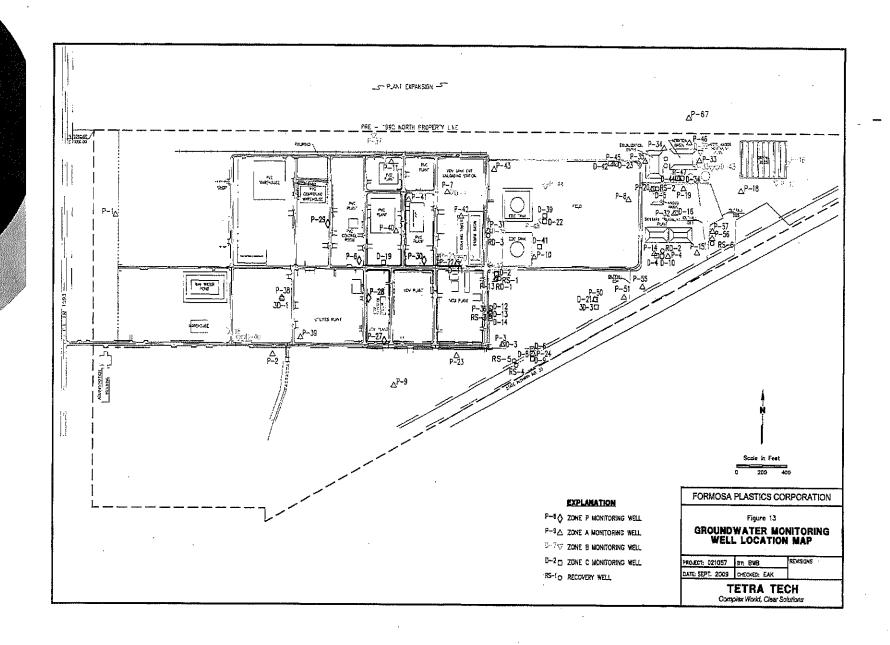
- RFI completed and approved 2007
- Investigation of Former Brookings property completed 2007
- Current Conditions Technical
 Memorandum completed 2008
- Pilot scale treatability study ongoing in 2010



- Corrective Measures Study replaced by Risk Management Plan; presented April 2010
 - Presented Conceptual Site Model
 - Presented Corrective Action Objectives
 - Proposed schedule of activities

FPC's Proposed Schedule

- January 2010 through June 2011
 - Investigation
 - Planning
 - Testing
- July 2011 through December 2012
 - Implementation of corrective actions
 - Performance monitoring



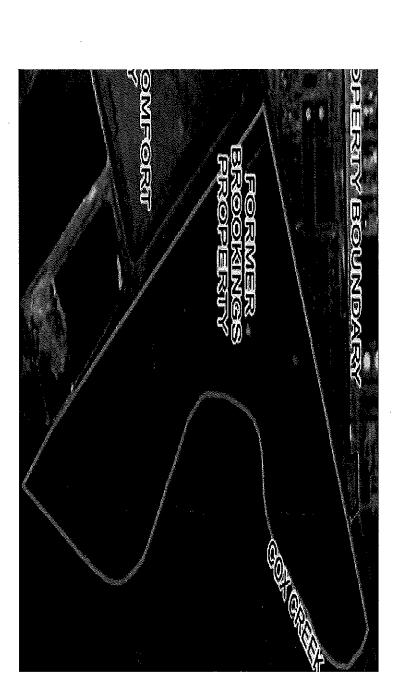
Areas of Concern

Former Brookings Property

Expansion Area

Contractors' Lay-down Areas

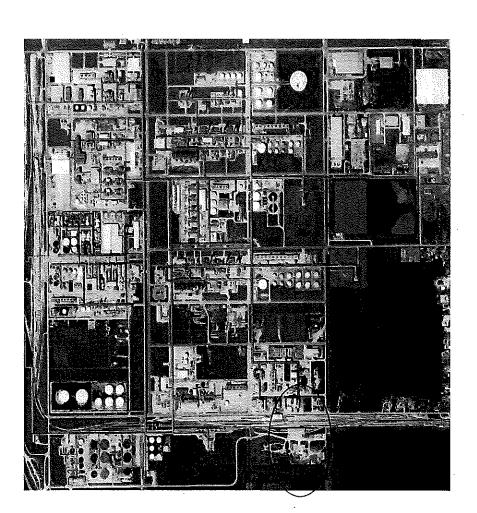
Former Brookings Property



Former Brookings Property

- Purchased by Formosa in October
 2005
- Groundwater data indicate potential for migration onto property.
- Groundwater investigation of shallow aquifer in 2007 did not find EDC or VCM contamination
- Need samples of deeper aquifers

Expansion Area



Expansion Area

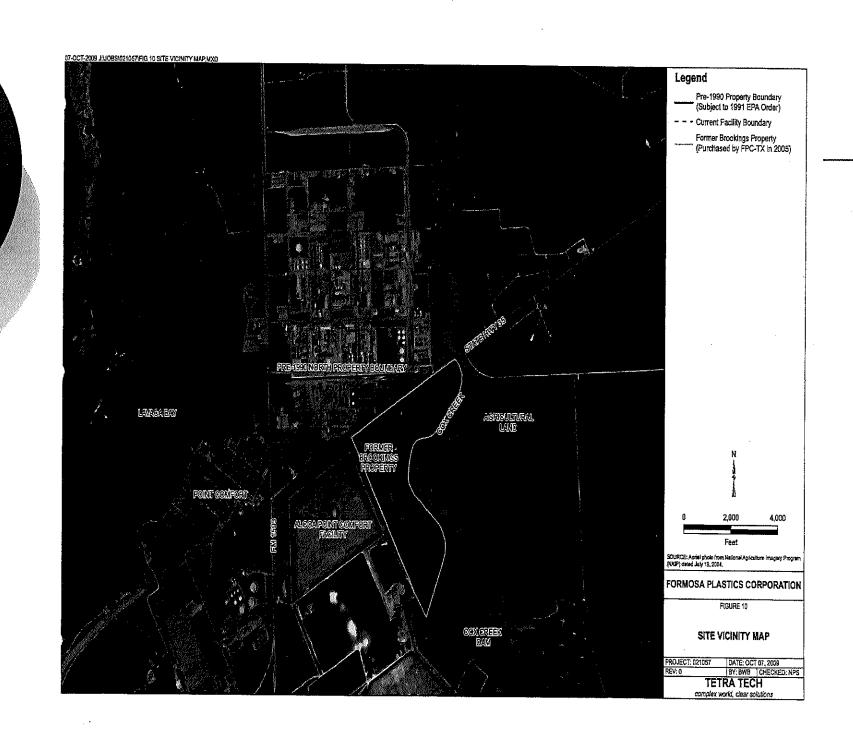
- o Process area constructed after 1990
- Limited information on environmental status
- Concern in new wastewater treatment plant area

Contractors' Lay-down Areas



Contractors' Lay-down Areas

- o Increased number of trailers
- TCEQ concerns for management
- Citizens concerns





- View the areas of concern
- Collect data about spills/releases/leaks/discharges
- Collect groundwater monitoring from different areas

o Questions???

Formosa Plastics plant in Point Comfort, Texas

i Report run on: May 6, 2010 10:26 AM

Page 1

Location City:	POINT COMFORT		
<u>Handler Id</u>	Handler Name	Location Address	Last Update
TXT490011293	FORMOSA PLASTICS	101 FORMOSA PLASTICS DR., POINT COMFORT, TX, 779780000	11-10-2002
TX0000888164	FORMOSA PLASTICS CORP TEXAS	.5M S OF HWY 35 ON FM 1593, POINT COMFORT, TX, 77978	09-02-2000
TXT490011293	FORMOSA PLASTICS CORP TEXAS/ FORMOSA UTI	201 FORMOSA DR, POINT COMFORT, TX, 77978	01-03-2005
TXT490011293	FORMOSA PLASTICS CORP TEXAS/ FORMOSA UTI	201 FORMOSA DR, POINT COMFORT, TX, 77978	02-01-2005
TXT490011293	FORMOSA PLASTICS CORP TEXAS/ FORMOSA UTI	201 FORMOSA DR, POINT COMFORT, TX, 77978	11-23-2004
TXD988088845	FORMOSA PLASTICS CORP TX MARINE TERMNAL	100 FORMOSA DR, POINT COMFORT, TX, 77978	09-02-2000
TXT490011293	FORMOSA PLASTICS CORP-POINT COMFORT	101 FORMOSA DR, POINT COMFORT, TX, 77978	09-02-2000
TXT490011293	FORMOSA PLASTICS CORP-POINT COMFORT	101 FORMOSA DR, POINT COMFORT, TX, 77978	11-09-2002
TXT490011293	FORMOSA PLASTICS CORPORATION	101 FORMOSA DRIVE, POINT COMFORT, TX, 779780000	11-09-2002
TX0000888164	FORMOSA PLASTICS CORPORATION TEXAS	FM 1593 .5 MI S OF HWY 35, POINT COMFORT, TX, 77978	03-25-2004
TX0000888164	FORMOSA PLASTICS CORPORATION TEXAS	FM 1593 .5 MI S OF HWY 35, POINT COMFORT, TX, 77978	04-22-2010
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TX0000888164	FORMOSA PLASTICS CORPORATION TEXAS	FM 1593 .5 MI S OF HWY 35, POINT COMFORT, TX, 77978	06-21-2005
TX0000888164	FORMOSA PLASTICS CORPORATION TEXAS	FM 1593 .5 MI S OF HWY 35, POINT COMFORT, TX, 77978	09-06-2007
TX0000888164	FORMOSA PLASTICS CORPORATION TEXAS	FM 1593 .5 MI S OF HWY 35, POINT COMFORT, TX, 77978	12-06-2005
TX0000888164	FORMOSA PLASTICS CORPORATION TEXAS	FM 1593 .5 MI S OF HWY 35, POINT COMFORT, TX, 77978	12-10-2007
TX0000888164	FORMOSA PLASTICS CORPORATION TEXAS	FM 1593, POINT COMFORT, TX, 77978	09-12-2008
TXD988088845	FORMOSA PLASTICS CORPORATION TEXAS	101 FORMOSA DR, POINT COMFORT, TX, 77978	02-24-2010
TXD988088845	FORMOSA PLASTICS CORPORATION TEXAS	101 FORMOSA DR, POINT COMFORT, TX, 77978	03-25-2004
TXD988088845	FORMOSA PLASTICS CORPORATION TEXAS	101 FORMOSA DR, POINT COMFORT, TX, 77978	09-10-2008
TXD988088845	FORMOSA PLASTICS CORPORATION TEXAS	101 FORMOSA DR, POINT COMFORT, TX, 77978	12-06-2005

Formosa Plastics plant in Point Comfort, Texas

Report run on: May 6, 2010 10:26 AM

Page 2

Location City:	POINT COMFORT		
<u>Handler Id</u>	Handler Name	Location Address	Last Update
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Formosa Plastics plant in Point Comfort, Texas

¹ Report run on: May 6, 2010 10:26 AM

Page 3

Location City:	POINT COMFORT		
<u>Handler Id</u>	Handler Name	Location Address	Last Update
TXT490011293	FORMOSA PLASTICS CORPORATION TEXAS	201 FORMOSA DR, POINT COMFORT, TX, 77978	07-15-2009
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TXT490011293	FORMOSA PLASTICS CORPORATION TEXAS	201 FORMOSA DR, POINT COMFORT, TX, 77978	12-10-2007
TXT490011293	FORMOSA PLASTICS CORPORATION, TEXAS	101 FORMOSA DRIVE, POINT COMFORT, TX, 77978	11-10-2002
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TXT490011293	FORMOSA PLASTICS TEXAS	201 FORMOSA DR, POINT COMFORT, TX, 77978	02-11-2004
	•		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6 1445 ROSS AVENUE, SUITE 1200 DALLAS, TX 75202-2733

March 26, 2010

Mr. R.P. Smith Vice President/General Manager Formosa Plastics Corporation, Texas P.O. Box 700 Point Comfort, Texas 77978

RE: Approval of the Risk Management Plan (RMP) and notification of the effective date of the Remedy Selection for the Administrative Order on Consent (AOC) Docket #VI - 001(h)-90-H

Dear Mr. Smith,

On October 9, 2009 the EPA received the draft Risk Management Plan (RMP) as required in our April 24, 2009 letter. In our letter, we also explained that the RMP was to be submitted in accordance to the Region 6 Corrective Action Strategy (CAS) in lieu of a final CMS report (as described in the AOC). On October 15, 2009, the EPA hosted a public meeting to present the EPA's Performance-Based Remedy Decision document to the public for a 45-day comment period. The comment period ended on November 30, 2009 and EPA subsequently wrote the Response to Comments/Final Remedy Decision (RTC) which FPC reviewed.

The purpose of this letter is to formally approve the RMP and to inform you that the RTC was signed by our Compliance Assurance and Enforcement Division director, Mr. John Blevins on March 11, 2010. This effective date for the remedy under the AOC "starts the clock" for the submittal of the required workplans described in the RTC. The EPA expects draft workplans by April 30, 2010 and the submittal of the final RMP.

If you have any questions or concerns, please feel free to contact me at 214.665.8385.

Mahey Fagan

oject Coordinator

CC:

Ms. Susan Clewis

TCEQ Region 14

Ms. Jacquee Rodriguez

TCEQ Austin

RESPONSE TO COMMENTS/FINAL DECISION DOCUMENT EPA REGION 6

under the

Final Administrative Order on Consent (Order), Docket No. RCRA-VI-001(h)-90-H, pursuant to Section 3008(h) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §6928(h)

for

Formosa Plastics Corporation Point Comfort, Texas TXT490011293

INTRODUCTION

EPA proposed a final remedy for addressing soil and groundwater contamination at the Formosa Plastics Corporation (FPC) site in Calhoun County, Point Comfort, Texas on October 15, 2009 as part of the RCRA corrective action requirements outlined in the above-mentioned Order. The EPA Order was issued on February 27, 1991 and a complete record of soil and groundwater investigations is available for review in the Administrative Record. A public meeting was held in Port Lavaca, Texas on October 15, 2009 to open the 45-day public comment period which ended on November 30, 2009. EPA has received comments and is now prepared to make the final decision regarding the remedy. The final conceptual site model is documented in the draft Risk Management Plan (October 2009). EPA's remedy proposal is documented in the Performance-Based Remedy Decision Document for Formosa Plastics Corporation, Point Comfort, Texas (October 9, 2009).

CORRECTIVE ACTION OBJECTIVES (CAO)

The performance-based remedy relies on the attainment of media-specific cleanup goals at appropriate points of compliance. This approach is focused on meeting cleanup goals for the protection of human health and the environment and measuring progress towards meeting the cleanup goals. The cleanup goals are described in the site-specific corrective action objectives (CAOs) for groundwater, surface soils, subsurface soil and surface water. The CAOs proposed for FPC site are described in the Performance-Based Remedy Decision document, which went through the public comment period October 15 through November 30, 2009.

<u>Corrective Action Objective 1</u>: The groundwater cleanup objective is to contain the plume, rather than return the groundwater to its maximum beneficial use

¹ All documents referenced and/or cited are part of the Administrative Record. The Administrative Record is located at the Point Comfort Branch Library and the EPA's Regional Office, Region 6, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202. Please Contact Nancy Fagan at 214-665-8385.

throughout the plume. The groundwater point of compliance (POC) for FPC will be at the Facility boundary (including the former Brookings property), where concentrations of chemicals of concern must be less than or equal to the maximum contaminant limits (MCLs) for drinking water. (In the event an MCL is not established for a chemical of concern, a risk-based action level will be developed.)

CAOs are developed on current and reasonably expected land and groundwater uses. Typically, the groundwater use designation is the starting point for determining the appropriate reasonable expected uses and exposures to evaluate risks and identify groundwater cleanup levels. Shallow groundwater resources in the area of FPC have been classified by the TCEQ as Class II having a beneficial use for agricultural and municipal/industrial use. Because of the groundwater classification, expected future use and the lack of human and ecological receptors from groundwater, the EPA has determined that containment is a viable option. The complex nature of the near-surface geology and hydrogeology were also considered in making the groundwater containment determination.

Corrective Action Objective 2:

To support the final groundwater cleanup objective, FPC must remove or treat source material in soils and/or groundwater to the extent practicable. Using the Texas Risk Reduction Program (TRRP), soils with concentrations of COCs in excess of the soil saturation limit (C_{sat}) must be addressed, and groundwater with concentrations of COCs in excess of 1% solubility must be addressed through removal or treatment.

Corrective Action Objective 3:

For the protection of on-site workers dermal contact or ingestion of COCs in soils, FPC will control or mitigate risks to appropriate TRRP industrial screening levels for surface and subsurface soils. Using TRRP guidance, risk associated with soil concentrations in excess of the appropriate TRRP PCL will be mitigated.

Corrective Action Objective 4:

The corrective action objective for surface water and sediment is to assure protection of human and ecological receptors by monitoring contaminant levels in surface water features associated with Areas of Concern (AOCs).

As part of CAO 4, the monitoring of contaminant levels will be compared to the appropriate values developed in accordance with TRRP.

EPA'S FINAL SELECTED REMEDY

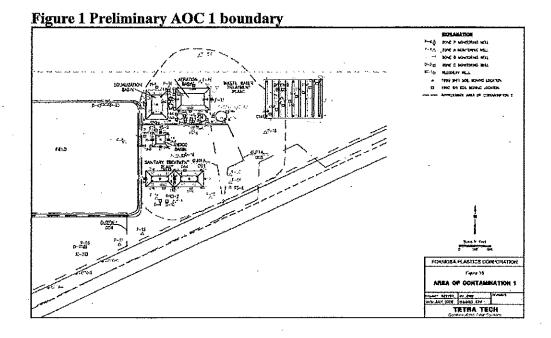
EPA's goal is to direct FPC to conduct remedy implementation to support the CAOs by the issuance of a Consent Order or Permit. The Consent Order or Permit will cover facility-wide corrective action and will be effective as an enforceable compliance mechanism throughout the operating life of the facility. The following is a summation of EPA's expectations for meeting the CAOs.

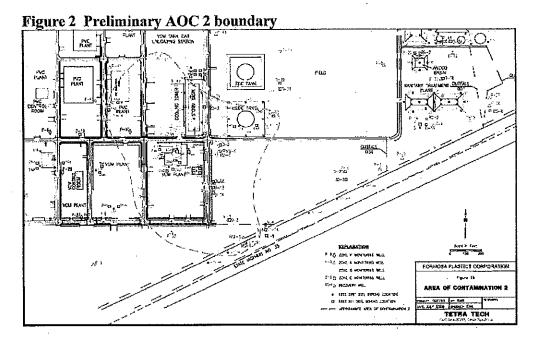
Area of Concern (AOCs)

FPC's final remedy is to contain contaminated groundwater within a designated area on site. EPA is proposing to address groundwater containment areas as AOCs at FPC. For the purpose of defining the groundwater plumes, there are two AOCs identified – the former WWT area and the VCM plant (Figures 1 and 2).

Attainment of Groundwater MCLs at the Point of Compliance

EPA will review and approve locations of *sentinel wells* along the boundary of each AOC. The actual boundary of each AOC will be determined when the sentinel wells for each zone are installed. The sentinel well system will serve as performance monitoring wells and will indicate if the plumes are contained and will serve as an alarm system to trigger contingency plans. Protective concentration levels (or "trigger levels") to be maintained at each sentinel well for each groundwater zone will be reviewed and approved by the EPA. Specific point of compliance (POC) wells will be located beyond the sentinel wells. The POC wells may be located at the facility boundary or other area under control of FPC. The POC wells must show that contaminant concentrations are at or below MCLs (see CAO 1).





Source Removal/Treatment

Removal or treatment of **source material** in subsurface soils that could leach into groundwater will enhance the attainment of the corrective action objectives for groundwater. FPC is investigating a method by which source material in the subsurface can be treated **in-situ** (in place) to reduce the contaminant release to groundwater from source material. If the treatment process proves itself through a pilot program, FPC will propose to set up a "treatment cell" or "treatment barrier" to address appropriate areas for each AOC.

Schedule of Remediation Activities

The Treatability Study and delineation of AOCs are scheduled for 2010 with the Design plan for the final remedy to be submitted in 2011. The year 2012 is scheduled for the construction phase of the final remedy, and 2015 will be the first year that the Performance Review will be conducted. Following 2015, the Performance Review will be conducted every three years and monitoring results will be documented in a Performance Review report that will be submitted for review and approval.

PERFORMANCE-BASED MEASURES TO ENSURE PROTECTIVENESS

The final phase of corrective action is described in the Corrective Measures Implementation (CMI) Plan. As part of the CMI Plan, FPC will be required to submit, for agency approval, a *Performance Monitoring Plan* which outlines periodic sampling of groundwater, soils, surface water and sediment to measure the effectiveness of the remedy in achieving the corrective action objectives. If groundwater extraction continues to be part of the remedy to meet the corrective action objectives, then additional

groundwater recovery wells may be needed. The *Performance Monitoring Plan* will also measure the effectiveness of the remedy and will outline a clear definition of the monitoring frequency, sampling locations and data interpretation.

FPC will be required to submit, for agency review and approval, a *Performance Review Plan*. This is a 3-year assessment of progress towards achieving the corrective action objectives, including a summary of the effectiveness and efficiency of the preferred alternative for the remedy. The *Performance Review Plan* will also include recommendations for any needed changes in performance monitoring and the adequacy and effectiveness of land use controls. The *Performance Review Plan* will have a clear decision logic diagram that defines 1) contingency plans to implement when CAOs are not being met, 2) a plan for phase-out of performance monitoring as risk is reduced, and 3) contingency plans to address any potential changes in land use.

FPC is required to submit, for agency review and approval a *Contingency Plan* which provides response actions to address any new releases or poor performance of the selected remedy. Failure to achieve the CAOs will trigger a contingency plan to correct the course of the remedy or to re-assess performance measures. FPC will conduct a Treatability Study to assess an alternative technology to the interim measures groundwater pump and treat system currently in operation to remove and treat contaminated groundwater. The *Contingency Plan* will outline other viable technologies, as well as an optimization plan for the pump and treat system that can be utilized to meet the CAOs.

FPC is required to submit, for agency review and approval, a *Community Relations Plan* which will outline various ways that FPC will communicate to the public and keep the public informed about the overall effectiveness of the remedy, and of any needed changes or modifications to the remedy in meeting the CAOs. An important part of the *Community Relations Plan* will be to keep the public informed of the final treatment technology for soils and groundwater.

FPC must implement institutional controls in the form of a site-wide Site Management Plan as part of the CMI to protect construction workers from contaminants in surface and subsurface soils and groundwater for all construction and excavation activities. The Site Management Plan will describe internal procedures for obtaining permits for excavation, proper protective clothing and equipment for contractors or FPC personnel, and all health and safety protocols that will be followed for excavation or treatment activities. The Site Management Plan will also include plans for engineering controls and institutional controls for mitigation of indoor air, including a description of control rooms or office space that are currently situated above any known groundwater-contaminated AOCs. Mitigation for indoor air at these buildings may include the following engineering controls: venting along foundations or positive pressure inside the buildings. EPA also proposes the use of any appropriate land use controls (LUCs) to ensure that exposures to residual contaminants in soil or groundwater are not incurred. All LUCs will be described in the Site Management Plan which specifies the implementation and

maintenance of LUCs. The effectiveness and adequacy of LUCs will be reviewed and documented as part of the 3-year *Performance Review Plan*.

EPA requested that FPC conduct a *Treatability Study* to determine if the source areas in the VCM and former WWT plant can be treated using in-situ bioremediation or other insitu abiotic treatment processes. In-situ bioremediation is a treatment of contaminated soils and groundwater in place to enhance the natural degradation of contaminants by adding bacteria and nutrients to speed up the breakdown process of volatile organic compounds. There are other enhancements that can also increase the abiotic breakdown of contaminants, or the Treatability Study may use a combination of biological and abiotic treatments to maximize contaminant degradation. A Treatability Study workplan will be incorporated as part of the CMI workplans. If the sampling results from the implementation of a pilot study (field test) support insitu treatment as a viable approach to address contaminated soil and groundwater, FPC may propose to implement this technology on a full scale basis, which may replace or supplement the pump and treat system currently operating. If the pilot test proves that current insitu treatment technologies are not applicable for the FPC facility, then FPC will be required to optimize the pump and treat system in place (as described in the Contingency Plan), or FPC may propose another remedial option to support the attainment of the CAOs. The final corrective measures for the SWMUs retained for remediation will be addressed concurrently with the proposal for soil and groundwater treatment.

PUBLIC PARTICIPATION ACTIVITIES

EPA hosted an informal meeting with members of the Calhoun County Resource Watch group on July 27, 2009, at the Port Lavaca Best Western. This meeting was held in the conference room all day to allow citizens to come in and express concerns and share information with regard to ongoing investigations. EPA hosted a public meeting on October 15, 2009 at the Port Lavaca High School Auditorium in Port Lavaca, Texas from 7 pm to 9:30 pm. Announcements for the public meeting appeared in the Port Lavaca Wave on Wednesday, October 7, and Sunday, October 11, 2009. The Victoria Advocate ran a front-page news story on the public meeting on October 16, 2009 which included EPA contact information. The Administrative Record for the EPA Order was available for review during the public comment period at the Point Comfort Branch public library and at Region 6 Dallas. The Performance-Based Remedy Decision document is on the internet at this address:

http://www.epa.gov/earth1r6/6pd/rcra c/pd-o/final dd-fpctx100909.pdf

PUBLIC COMMENTS AND EPÀ RESPONSE

Item 1

COMMENT/ISSUE: From Port Lavaca, Tx, one commenter stated that they want Formosa to be a good neighbor and fix or repair any damages they cause. EPA RESPONSE: EPA agrees with the nature of this comment. It is EPA's expectation for FPC to incorporate good communication with the community, as described in the Community Relations plan that is part of the reporting requirements of the final remedy.

Item 2

COMMENT: From Port Lavaca Tx, another commenter stated that Formosa has a history of abnormal reporting and operating practices.

EPA RESPONSE: EPA is not aware of abnormal reporting practices; however, in order to ensure the confidence of the community, EPA will perform split-sampling for the first Performance Review of the final remedy and will request the Texas Commission on Environmental Quality (TCEQ) or the EPA enforcement to conduct un-announced sampling inspections as part of facility compliance investigations.

Item 3

COMMENT: From the Calhoun County Resource Watch, the president and founder made a comment that a new facility-wide EPA Order on FPC must be done as soon as possible, and it would be helpful if this was a joint Order that included EPA, TCEQ and OSHA. A request for unannounced inspections was also stated.

EPA RESPONSE: EPA initiated discussions with the TCEQ and is expecting a response soon with a decision regarding the new facility-wide corrective action order/permit. All release areas under the new order/permit will be investigated. EPA will request that TCEQ include sampling events with unannounced compliance inspections.

Item 4

COMMENT: From the Calhoun County Resource Watch, another comment referred to the potential for EDC contamination in the sediments of Cox Creek and requested that Cox Creek should be included in a new EPA Order. The commenter stated that the facility-wide investigation should seek to uncover buried drums of hazardous waste under about 5 feet of fill dirt near the Texas rest area on Highway 35.

EPA RESPONSE: EPA initiated discussions with the TCEQ and is expecting a response soon with a decision regarding the new facility-wide corrective action order/permit. All release areas under the new order/permit will be investigated.

Item 5

COMMENT: From the Calhoun County Resource Watch, another comment raised is that Formosa is manipulating data to show that Lavaca Bay isn't being contaminated, the workers are not being exposed to cancer-causing agents, and that the community of Point Comfort isn't slowly being poisoned under the guise of being a good neighbor. EPA RESPONSE: Releases of contaminants to Lavaca Bay are regulated under the Texas Pollutant Discharge Elimination System (TPDES) permitting program. The EPA project manager for the EPA Order has discussed the need for a review of the upcoming TPDES permit renewal with the EPA Region 6 Water Division. The EPA is planning on reviewing the FPC Data Quality Objectives (DQO) process for submitting data to the EPA.

Item 6

COMMENT: Another citizen comment sent via email referred to the lack of coordination between EPA, TCEQ and OSHA and stated that the three agencies should use a centrally located system to keep up with investigations, reports and other findings. EPA RESPONSE: Because of concerns expressed by the Port Lavaca community at various meetings, EPA Region 6 has started a new program called Integrative Project Management using our Lotus Notes Quickr© web sites. This EPA-internal software allows users from various Divisions to communicate via one web site that "houses" discussion pages, web sites, Division-specific Libraries of downloaded documents such as TPDES permits, RCRA permits, etc. Project managers from various divisions will be trained on the use of this concept this fiscal year. Since this is a new program within EPA, we are still looking at ways to provide an external link to outside agencies such as OSHA and TCEQ, and hope to resolve this issue soon.

Item 7

COMMENT: The same commenter from Item 6 wants to know how EPA intends on keeping the EDC from moving, and how is FPC going to be responsible for damages to Cox Creek. Also stated, if EDC is found in the water table, then how does EPA know how much the plant workers have absorbed, and could the workers be tested for exposure to EDC.

EPA RESPONSE; CAO 2 states that FPC must address contaminants in soil that act as a source for continued leaching to groundwater through removal or treatment. Additionally, for the contaminants currently in groundwater, EPA is setting specific boundaries and cleanup goals to meet. Performance monitoring will indicate whether migration of contaminants above health-based levels is occurring. The monitoring system will also test TRRP-derived ecological levels for Cox Creek. EPA will conduct split sampling using EPA laboratories and compare results with FPC for data quality assurance. Workers at FPC should be part of an occupational health and safety program under the guidance of OSHA.

Item 8

COMMENT: FPC proposed that EPA adopt the Corrective Action Objectives as written in the October 9, 2009 Draft Risk Management Plan.

EPA RESPONSE: EPA has made one change to CAO 3 to address FPC concerns and to use TRRP numbers more appropriately. Specifically, the ^{GW}Soil_{Ing} was replaced with the appropriate TRRP PCL.

Item 9

COMMENT: FPC proposed to use the following language for CAO 1:

"The concentration of chemicals of concern present in groundwater must be less than or equal to applicable TRRP PCLs at the point of compliance."

EPA RESPONSE: EPA does not concur. EPA is proposing a groundwater containment remedy which means that contaminants of concern can be managed under FPC property by treatment or removal without the expectation that groundwater will be remediated to drinking water standards. The containment remedy sets forth the expectation that contaminants leaving the property boundary that is not under FPC control must meet

drinking water standards, therefore the TRRP PCLs for Class 2 groundwater would not be appropriate under this application. No changes will be made to the CAO 1.

Item 10

COMMENT: FPC disagrees with the requirement to evaluate ecological enhancements at the former Brookings property. FPC purchased this property for future industrial development. And this development has been initially implemented with the use of the property as a pipeline corridor between the existing facility and a Formosa-owned power generation plant located adjacent to the Calhoun County Navigation District. The property was used as a pipeline corridor prior to Formosa's purchase and it is crossed by natural gas pipeline connection systems. In addition, the property is adjacent to Alcoa's spent bauxite ore disposal landfills that are currently utilized. Due to its proximity to industrial facilities and Highway 35, which is a highly travelled road, this land would not serve as a pristine environment for wildlife.

EPA RESPONSE: EPA concurs with this comment and would like to point out that FPC approved a 2004 grant request from the Keep Calhoun County Beautiful committee to plant palm trees along Hwy 35 to support the ecological habitat of bats and other migratory birds. EPA would agree with using the Endowment Trust to continue to support this project and other projects that protect and preserve the ecological habitat in Calhoun County.

Item 11

COMMENT: FPC does not believe it is appropriate for EPA to include a CAO addressing surface water and sediment in Cox Creek. Investigations completed to date have not identified off-site groundwater impacts or discharge of impacted groundwater to Cox Creek and there are currently no known potential risks to human health or the environment associated with surface water or sediment. Corrective action objectives are defined as site-specific objectives that support the performance standards. There are no complete exposure pathways from that portion of the facility covered by the 1991 Order, therefore, by definition, there can be no CAOs associated with surface water or sediment, EPA RESPONSE: EPA does not concur. Preliminary investigations indicate that Cox Creek is a gaining stream during some seasons of the year, which means that shallow contaminated groundwater could be migrating to the creek at the groundwater/surface water interface; in addition, the Alcoa investigations indicate that shallow groundwater in Zone A and Zone B flows in an easterly direction, towards Cox Creek. As part of the Fact Sheet compiled for the issuance of the 1991 Order, EPA documented a November 22, 1982 surface water spill to a ditch than thence to Cox Creek that was contaminated with chromate and a December 11, 1982 discharge of EDC contaminated water to Cox Creek through outfall 001. Therefore, CAO 4 will be remain as surface water monitoring with specific points of compliance and appropriate compliance concentrations from TRRP defined in the Performance Monitoring Plan.

Item 12

COMMENT: FPC does not believe that periodic surface water and sediment sampling activities should be included as part of the initial Performance Monitoring Plan. The

initial Performance Monitoring Plan will include periodic groundwater monitoring to ensure that the selected Corrective Actions are effective. In the event future groundwater monitoring of down-gradient sentinel monitoring wells detect unacceptable concentrations of chemicals of concern in groundwater, the Contingency Plan will be implanted. At that time, if warranted by the data, the Performance Monitoring Plan may be modified to include surface water and/or sediment sampling. EPA RESPONSE: EPA does not concur. See response to Item 11 above.

Item 13

COMMENT: FPC disagrees with the wording on page 7 that refers to Surge Basin (SWMU 3), the Emergency Basin (SWMU 4) and the Storm Water Basin (SWMU 1) as "source areas for groundwater contamination". Because these impoundments were cleaned out and all material was removed, the SWMU itself should not be considered as a source area. While historically impacted soil in the vicinity of these SWMUs may be an on-going source of groundwater contamination, the physical SWMUs are no longer a source.

EPA RESPONSE: EPA concurs with this comment.

Item 14

COMMENT: FPC disagrees with the statement that the Site Management Plan will include engineering and institutional controls for the mitigation of indoor air. FPC proposed that the AOCs first be well defined, then if any control rooms or manned buildings are located above the AOC, the soil and groundwater data will be evaluated in accordance with TRRP to determine if there is a possibility of indoor air intrusion. If the potential exists, then the Site Management Plan will be modified to address those issues. EPA RESPONSE: EPA does not concur. Mitigation of contaminants in indoor air is a relatively inexpensive endeavor – it may be addressed by incorporating a positive pressure fan system either below the occupied area or in the breathing space. Sampling and interpretation of sample results is more expensive than mitigation, therefore, EPA expects that the Site Management Plan will identify any control rooms or office space located above the defined AOCs, and describe the appropriate mitigation measures to address indoor air.

TECHNICAL ADDITIONS/CLARIFICATIONS TO THE EPA-PROPOSED REMEDY

EPA is using a concept for monitoring the containment of contaminated groundwater through the use of the AOC. This is similar to the use of the plume management zones (PMZ) adapted by the TRRP. Under TRRP, the requirements for implementation of a PMZ are more stringent than the AOC approach set forth in this decision document. For a PMZ, there is a requirement to delineate the lateral and vertical extent of the plume before the PMZ is approved. It is EPA's expectation that the lateral and vertical extent will be defined as the sentinel well locations are defined in the field.

FUTURE ACTIONS

As discussed in the public meeting of October, 15, 2009, the EPA and TCEQ agree that the FPC facility should be addressed under one mechanism for facility-wide corrective action. EPA is expecting a response from TCEQ with regard to the new mechanism for corrective action. Release areas for all parts of the facility will be reviewed, and reports will be updated to include all release areas. An updated Performance-Based Remedy Decision document will be shared with the public to solicit comments for addressing all release areas with the corrective action objectives stated in this RTC/Decision document.

DECLARATION

Based on the administrative record compiled for this corrective action, I have determined that the selected remedy to be ordered at this site is appropriate and will be protective of human health and the environment.

John Blevins, Director

Compliance Assurance and Enforcement

Division

3-11-10

Effective Date

Texas Commission on Environmental Quality Investigation Report

FORMOSA PLASTICS CORPORATION TEXAS CN600130017

FORMOSA POINT COMFORT PLANT RN100218973

Investigation #748900

Investigator:

MICHELLE PHILLIPS

Incident#

Site Classification

LARGE QUANTITY GENERATOR **CONTAINER STORAGE AREA**

Conducted:

Program(s):

05/27/2009 -- 06/05/2009

SIC Code: 2821 NAIC Code: 325211

INDUSTRIAL AND

HAZARDOUS WASTE NONPERMITTED INDUSTRIAL AND HAZARDOUS WASTE

STORAGE

INDUSTRIAL AND

HAZARDOUS WASTE POST

CLOSURE

INDUSTRIAL AND HAZARDOUS WASTE

GENERATION INDUSTRIAL AND HAZARDOUS WASTE

DISPOSAL

IHW CORRECTIVE ACTION

Investigation Type: Compliance Investigation

Location: 201 FORMOSA DR POINT

COMFORT TX

Additional ID(s): TXT490011293

31945 TX0085570 31945

WQ0002436000

Address: 201 FORMOSA DR;

Activity Type:

REGION 14 - CORPUS CHRISTI

POINT COMFORT, TX 77978

IHWLQG - CEI of large quantity generator

Work .

(361) 987-7000

Principal(s):

Role

RESPONDENT FORMOSA PLASTICS CORPORATION TEXAS Contact(s):

Name

MANAGER

Role Title Name Phone **ENVIRONMENTAL** Work (361) 987-8070 Participated in Investigation MR ANDY HENNESSEY **ENGINEER** Fax (361) 987-2363 **ENVIRONMENTAL** Work (361) 987-7468 Notified MR MATT BROGGER **ENGINEER** Fax (361) 987-2363 **ENVIRONMENTAL** MR MATT BROGGER (361) 987-2363 Participated in Investigation ENGINEER Work (361) 987-7468 ENVIRONMENTAL MR DAVID HILL Fax (361) 987-2363 Participated in Investigation

FORMOSA POINT COMFORT PLANT - POINT COMFORT

5/27/2009 to 6/5/2009 Inv. # - 748900

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Regulated Entity Mail Contact .

MR R.P. SMITH

(361) 987-7000 Work

PRESIDENT/GENERAL MANAGER

Other Staff Member(s):

Role

Name

Investigator Investigator. QA Reviewer

Supervisor

BARBARA BEYNON YVONNE JIMENEZ PHYLLIS CUNNINGHAM

BRAD GENZER

Associated Check List

Unit Name Checklist Name IHW CONTAINER STORAGE AREA CSA IHW GENERIC OTHER ISSUES OR VIOLATIONS (10 Generic ITEMS) IHW LAND DISPOSAL RESTRICTIONS FOR LDR GENERATOR/TSD IHW PRE-INVESTIGATION Pre IHW SOURCE REDUCTION & WASTE MINIMIZATION SRWM IHW CEI GENERAL FACILITY General

Investigation Comments:

INTRODUCTION

On May 27-28, and June 03, 04, and 05, 2009, I, Ms. Michelle Phillips, Environmental Investigator with the Texas Commission on Environmental Quality (TCEQ) conducted a multimedia compliance evaluation investigation (CEI) in conjunction with Ms. Barbara Beynon, TCEQ Environmental investigator at the Formosa Plastics Corporation, Texas (Formosa), located at 201 Formosa Drive in Point Comfort, Calhoun County, Texas. I focused on compliance with solid waste regulations while Ms. Beynon focused on industrial waste water compliance, conducting a comprehensive compliance investigation (CCI). Please see CCEDS report #749512 for Ms. Beynon's investigation. Prior notification for this investigation was given via telephone on May 18, 2009 to Mr. Matt Brogger, Environmental, Health and Safety Department with Formosa. During the investigation we were accompanied by Mr. Brogger, Mr. David Hill, Environmental Manager, and Mr. Andy Hennessey, Environmental Engineering Staff, all representing Formosa. Additionally, Ms. Yvonne Jimenez, Environmental Investigator with the TCEQ, participated in the investigation on May 27-28 and June 03-04, 2009

On entrance meeting was held the morning of May 26, 2009 to inform the participants of the scope and purpose of the multimedia investigation. An exit meeting was held for the waste portion of the investigation on June 05, 2009, with Mr. Brogger, Mr. Hill, and myself in attendance and preliminary investigation findings were discussed. An Exit Interview Form was provided to Mr. Hill indicating potential non-compliances and requesting additional information. Additional Exit Interview Forms were provided on June 10, 2009, and July 17, 2009.

GENERAL FACILITY AND WASTE PROCESS INFORMATION

Formed in 1978, Formosa is a privately held company headquartered in Livingston, New Jersey. The core business is producing plastic resins and petrochemicals, and takes place at three manufacturing subsidiaries located in Delaware City, Delaware, Baton Rouge, Louisiana, and Point Comfort, Texas. The Point Comfort, Texas facility consists of thirteen production units and a variety of support facilities at its 1,600 acre petrochemical complex. The site's initial Vinyl Cloride Monomer (VCM)/Poly Vinyl Chloride (PVC) plant went online in 1983. An additional expansion in 1994 added several more operating units - olefins, Linear Low Density Polyethylene (LLDPE), High Density Polyethylene (HDPE), Polypropylene (PP), chlor-alkali, Ethylene Dichloride (EDC), power co-generation (steam and electricity) and a new wastewater treatment facility. In 1998, Formosa initiated a second major expansion project which added a second Olefins plant, a second HDPE

FORMOSA POINT COMFORT PLANT - POINT COMFORT

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plant and a second PP plant. A new Specialty PVC production plant and a Circulating Fluidized Bed (CFB) energy unit, are now under construction. The following intermediates, products and co-products are produced at the Point Comfort facility: caustic, chlorine, ethylene, EDC, VCM, suspension PVC resins, specialty (dispersion) PVC resins, hydrochloric acid, ethylene glycol, HDPE, LLDPE, propylene and polypropylene. Please see Attachment 2 for Facility Site Maps.

The facility is currently registered as a large quantity generator of hazardous waste and this is reflected on the facility Notice of Registration (See Attachment 1). The facility manages waste in fourteen less than 90 day container storage areas, five satellite accumulation areas, one combined waste water treatment plant (which includes numerous pre-treatment and treatment units throughout the facility), and two surface impoundments (non hazardous raw water ponds). The facility additionally lists numerous waste tanks and surface impoundments that are in the process of closure as determined through an order of consent with EPA (please see "Background" section for more information), as well as two underground injection wells (WDW402, WDW403).

Primary hazardous waste streams include: solution catalyst wastes, aqueous organic wastes, halogenated organic solids, distillation ends, PVC filter elements, reboiler scale, canister and filter media, strainer waste, EDC contaminated soil/debris/filter bags and equipment, paint waste, hydrocarbon contaminated rags/gloves/ppe, and fluorescent lamps and batteries (managed as universal waste). The facility utilizes Veolia in Port Arthur, TM Deer Park, USET in Robstown, and Clean Harbors in La Porte and Kimball, as their main disposal facilities. Wastewater sludge is disposed of at Altair Disposal Services in Altair, Texas.

Records reviewed during the investigation included, but were not limited to the following: waste manifests, container storage area inspection records, notice of registration, contingency plan, source reduction/waste minimization plan, waste determinations, process descriptions, facility site maps, recycling notifications, LDR documentation, personnel training records, and spill report documentation.

During the review of facility manifests, the following alleged noncompliances were noted: 10 manifests were observed to lack a return copy and the facility had failed to submit an exception report after 45 days, 29 manifests lacked a "generator copy" of the manifest, and 3 manifests lacked proper signatures/dates/transporter EPA numbers, etc. (See Attachment 5 - Waste Manifests). Facility personnel were able to obtain some, but not all of the missing manifests, and were able to correct some of the inaccurate manifests. Facility personnel indicated that additional training would be provided on manifest regulations to ensure compliance in the future.

During the review of the facility contingency plan it was noted that the plan failed to list all names, addresses, and phone numbers (home and office) of personnel qualified to serve as emergency coordinator in priority order as required (See Attachment 7 - Facility Correspondence). On June 15, 2009, the facility submitted documentation indicating the contingency plan would be updated to reflect this required information.

During the review of the facility notice of registration (See Attachment 1 - Facility Notice of Registration), it was noted that the facility had failed to provide written notification for all industrial solid waste streams and associated waste management units. Specifically, the facility failed to notify the agency of all wastewater waste streams generated and managed at the facility. The facility had identified wastewater waste streams on the NOR after they had been comingled with other waste streams, but not at the point of generation leaving the process units. The facility failed to have waste determinations for these wastewaters. Additionally, the facility had failed to notify of a solid waste management unit managing industrial class 2 wastewater sludge adjacent to tank T101B in the combined wastewater treatment area. The NOR also was inconsistent with current facility operations in other ways: active waste streams were listed as being managed in inactive or incorrect solid waste management units, inactive waste streams were listed as active, inactive or closed solid waste management units were listed as active, etc. Facility personnel indicated a complete overhaul of the facility NOR would be undertaken to correct the inaccuracies so that the NOR would accurately reflect current facility operations.

During the facility site tour a 55 gallon drum managing hazardous waste (Texas waste code 0011597H, HDPE Catalyst Waste) was observed in the facility non-hazardous container storage area, NOR 033. The drum lacked an accumulation start date. Facility personnel were able to track the waste using internal tracking codes and placed the drum in the appropriate management area and properly labeled the drum with the accumulation start date.

ADDITIONAL INFORMATION

On February 27, 1991, the United States Environmental Protection Agency (USEPA) Region 6 office issued 3008(a) and 3008(h) Orders to Formosa due to the unauthorized management of hazardous wastes in six unapproved surface impoundments. The subsequent releases that occurred from those impoundments created soil and groundwater contamination. Corrective actions required in the 3008(h) Order included an Accelerated Resource Conservation and Recovery Act (RCRA) Facility Investigation, an Interim Measures Study, a RCRA Facility Investigation (RFI), and a Supplemental RFI. As a result of these studies, Interim Measures consisting of the extraction and treatment of impacted groundwater associated with the VCM Plant and the original wastewater treatment plant were implemented and remain in effect. The results of these studies concluded that ten of thirty-five Solid Waste Management units (SWMUs) identified were recommended for corrective action. The SWMUs remain inactive and out of service and are in various stages in the closure process under the supervision of Nancy Fagan, EPA Region 6. The facility continues to submit monthly, quarterly, and/or annual progress reports which summarizes the Interim Measures Progress, Groundwater Monitoring, and RCRA RFI progress. Formosa is planning to propose a new "Risk Management Plan" based on risk rather than traditional factors for future corrective actions in September 2009.

CONCLUSION

During the investigation certain alleged non-compliances were noted. A Notice of Violation will be transmitted to the facility.

NOV Date Method 08/03/2009 WRITTEN

OUTSTANDING ALLEGED VIOLATION(S)
ASSOCIATED TO A NOTICE OF VIOLATION

Track No: 368638 Con

Compliance Due Date: 09/03/2009

Violation Start Date: Unknown

30 TAC Chapter 335.62

40 CFR Chapter 262.11

40 CFR Chapter 262.11(a)

40 CFR Chapter 262.11(b)

40 CFR Chapter 262.11(c)

40 CFR Chapter 262.11(c)(1)

40 CFR Chapter 262.11(c)(2)

40 CFR Chapter 262.11(d)

Alleged Violation:

Investigation: 748900 Comment Date: 08/03/2009

Failure to conduct a waste determination for each solid waste generated.

Specifically, the facility failed to conduct waste determinations for all waste streams exiting the process units to be managed in the facility wastewater treatment system. At least 16 process units generating approximately 30 wastewater waste streams were identified through process descriptions and flow diagrams for which the facility had failed to conduct a hazardous waste determination.

Recommended Corrective Action: The regulated entity shall conduct a waste determination for each solid waste generated pursuant to 40 CFR 262.11 and 30 TAC 335.62.

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Track No: 369090

Compliance Due Date: 09/03/2009

Violation Start Date: Unknown

30 TAC Chapter 335.6(c)

30 TAC Chapter 335.6(c)(1)

30 TAC Chapter 335.6(c)(2)

30 TAC Chapter 335.6(c)(3)

30 TAC Chapter 335.6(c)(4)

30 TAC Chapter 335.6(c)(5)

30 TAC Chapter 335.6(c)(5)(A)

30 TAC Chapter 335.6(c)(5)(B)

30 TAC Chapter 335.6(c)(5)(C)

30 TAC Chapter 335.6(c)(5)(D)

Alleged Violation:

Investigation: 748900

Comment Date: 08/03/2009

Failure to provide written notification for all industrial solid waste streams and associated management units.

Specifically, the facility failed to notifiy the agency of all wastewater waste streams generated and managed at the facility. At least 16 process units generating approximately 30 wastewater waste streams were identified through process descriptions and flow diagrams for which the facility had failed to notify on the facility Notice of Registration. Additionally, the facility failed to provided notification of the container storage area regularly managing wastewater sludge roll offs adjacent to tank T101B located in the facility combined wastewater treatment unit.

Recommended Corrective Action: The regulated entity shall provide written notification for all industrial solid waste streams and associated management units.

Track No: 369092

Compliance Due Date: 09/03/2009

Violation Start Date: Unknown

30 TAC Chapter 335.6(c)

Alleged Violation:

Investigation: 748900

Comment Date: 06/26/2009

Failure to document changes or additional information with respect to that originally provided within 90 days of changes.

During the investigation numerous inacurracies were observed on the facility Notice of Registration (NOR). These inaccuracies include but are not limited to: waste streams that are inactive are indicated as active, NOR lacking additional EPA waste codes assigned to waste streams, duplicate waste stream listings, active wastes listed as being managed in inacitve management units, duplicate management units listed, inaccurate management units listed for waste streams.

Recommended Corrective Action: The regulated entity shall document changes or additional information with respect to that originally provided within 90 days. The regulated entity shall ensure the facility NOR accurately reflects current management and waste stream practices.

ALLEGED VIOLATION(S) NOTED AND RESOLVED
ASSOCIATED TO A NOTICE OF VIOLATION

Track No: 369099

Resolution Status Date: 7/3/2009

Violation Start Date: Unknown

Violation End Date: 6/19/2009

30 TAC Chapter 335.13(k) 30 TAC Chapter 335.13(k)(1)

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30 TAC Chapter 335.13(k)(2) 40 CFR Chapter 262.42

Alleged Violation:

Investigation: 748900

Comment Date: 07/03/2009

Failure to submit an exception report to TCEQ when the original copy of the manifest was not received back from the TSDF within 45 days of the date of shipment.

Specifically, during the review of manifests for the last three years, 10 manifests were observed to lack the return copy from the TSDF and over 45 days had passed from the date of shipment.

Recommended Corrective Action: The regulated entity shall submit an exception report to the TCEQ when the original copy of the manifest is not received back from the TSDF within 45 days of the date of shipment.

Resolution: The facility was able to locate some, but not all of the missing manifests. On June 19, 2009, the facility submitted documentation indicating that additional training would be provided to ensure proper waste manifest tracking in the future.

Track No: 369101

Resolution Status Date: 7/3/2009

Violation Start Date: Unknown

Violation End Date:6/19/2009

30 TAC Chapter 335.13(i) 40 CFR Chapter 262.40(b)

Alleged Violation:

Investigation: 748900

Comment Date: 06/26/2009

Failure to maintain manifests for at least three years from the date the waste was accepted by the initial transporter.

During the investigation it was noted that during the last three years, 29 instances were documented that the facility failed to maintain the "generator" copy of the manifest.

Recommended Corrective Action: The regulated entity shall maintian the original copy of the manifest for a period of three years from the date of shipment.

Resolution: The facility was able to locate some, but not all of the missing manifests. On June 19, 2009, the facility submitted documentation indicating that additional training would be provided to ensure proper waste manifest tracking in the future.

AREA OF CONCERN

Track No: 369094

Resolution Status Date: 7/3/2009

Violation Start Date: Unknown

Violation End Date: 6/19/2009

30 TAC Chapter 335.10(b)

30 TAC Chapter 335.10(d)(1)

40 CFR Chapter 262.20(a)

40 CFR Chapter 262.23(a)

Alleged Violation:

Investigation: 748900

Comment Date: 07/03/2009

Failure to ensure waste manifests are properly completed and signed.

Specifically manifests were found to be lacking signatures (return copy lacked a signature), dates (generator signature lacked a date), and EPA ID numbers (transporter lacked an EPA ID number).

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Recommended Corrective Action: The regulated entity shall ensure that waste manifests are properly completed and signed as required.

Resolution: The regulated entity sumitted documentation indicating that additional training shall be provided to ensure proper manifest procdures are followed. On June 19, 2009, the facility submitted copies of manifests indicating corrections to the required manifests had been made.

Track No: 369103

Resolution Status Date: 7/3/2009

Violation Start Date: Unknown

Violation End Date:6/19/2009

30 TAC Chapter 335.69(a)(4)

30 TAC Chapter 335.69(a)(4)(A)

30 TAC Chapter 335.69(a)(4)(B)

30 TAC Chapter 335.69(a)(4)(C)

40 CFR Chapter 262.34(a)(4)

Alleged Violation:

Investigation: 748900

Comment Date: 06/26/2009

Failure to list all names, addresses, and phone numbers (home and office) of personnel qualified to serve as emergency coordinator in priority order as required.

Specifically, during the investigation it was noted that the facility Contingency Plan did not include the names, addresses, and phone numbers (home and office) of facility personnel quilified to serve as emergency coordinator in priority order.

Recommended Corrective Action: The regulated entity shall list all names, addresses, and phone numbers (home and office) of personnel qualified to serve as emergency coordinator in priority order in the facility Contingency Plan as required.

Resolution: On June 19, 2009, the facility submitted documentation indicating the names, addresses, and phone numbers (home and office) of personnel to act as emergency response coordinators has been included in the facility contingency plan as required.

Track No: 369302

Resolution Status Date: 8/3/2009

Violation Start Date: Unknown

Violation End Date:6/4/2009

30 TAC Chapter 335.69(a)(2) 40 CFR Chapter 262.34(a)(2)

Alleged Violation:

Investigation: 748900

Comment Date: 08/03/2009

Failure to clearly mark the accumulation start date on each container managing hazardous waste.

During the investigation a 55 gallon drum managing hazardous waste (0011597H, HDPE catalyst waste) was observed in the facility's non-hazardous waste container storage area. The drum lacked any accumulation start date.

Recommended Corrective Action: The regulated entity shall clearly mark the accumulation start date on each container managing hazardous waste.

Resolution: On June 04, 2009, the facility placed the accumulation start date on the drum, thus resolving this alleged violation.

FORMOSA POINT COMFORT PLANT - POINT COMFORT 5/27/2009 to 6/5/2009 Inv. # - 748900

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Signed	Date
Environmental Investigator	
Signed	Date
Supervisor	
	in n
Attachments: (in order of final report submi	ittal)
Enforcement Action Request (EAR)	Maps, Plans, Sketches
Letter to Facility (specify type) :	Photographs
Investigation Report	Correspondence from the facility
Sample Analysis Results	Other (specify):
Manifests	
NOR	



Formosa Plastics Corporation, Texas

201 Formosa Drive • P.O. Box 700 Point Comfort, TX 77978

Telephone: 361-987-7000 Fax: 361-987-2363

May 22, 2009

· Via e-mail:

Ms. Nancy Fagan Project Manager 6PD-O U. S. Environmental Protection Agency 1445 Ross Avenue Dallas, TX 75202-2733

Interim Measures Progress Report RE:

RCRA Docket No. VI-001(h)-90-H

3008(h) Administrative Order on Consent

EPA I. D. No. TXT490011293

Solid Waste Registration No. 31945

Dear Ms. Fagan:

As per section IX, Paragraph A.2 of the above Order and Section II, Task VI of the Corrective Action Plan (CAP), Formosa Plastics Corporation, Texas (FPC-TX) is submitting the progress report for the month of April 2009.

Description and estimate of the percentage of the IM completed:

Estimated percentage completion is 50%. FPC-TX received EPA approval of the final RCRA Facility Investigation Report on January 8, 2007 and is now moving forward with the Corrective Measures Study (CMS). EPA approved the Proposed Action Items and Schedule on July 6. 2007. This document outlines the steps necessary to complete the CMS.

Summaries of all findings:

None collected.

Summaries of all changes made in the IM during the reporting period:

N/A

Summaries of all contacts with representatives of the local community, public interest groups or State government during the reporting period:

N/A

Summaries of all problems encountered during the reporting period:

N/A





Actions being taken to rectify problems:

N/A

Changes in personnel associated with the corrective measures and plant management during the reporting period:

•. N/A

Projected work for the next reporting period:

• N/A

Copies of daily reports, inspection reports, laboratory/monitoring data, etc:

N/A

Should you require additional information or assistance please contact Matt Brogger at (361) 987-7468 or by e-mail at mattb@ftpc.fpcusa.com.

Sincerely,

R. P. Smith

Vice President/General Manager Formosa Plastics Corporation, Texas cc:

Ms. Susan Clewis TCEQ, Region 14

NRC Building, Suite 1200 6300 Ocean Drive, Unit 5839 Corpus Christi, TX 78412

Certified Mail: 7007 1490 0004 3439 5213

Certified Mail: 7007 1490 0004 3439 5206

Ms. Karen F. Scott, P.G. TCEQ I&HW Permits Section P.O. Box 13087 Austin, TX 78711-3087

Ms. Merrilee Hupp, (MC-169) TCEQ P.O. Box 13087 Austin, TX 78711-3087 Certified Mail: 7007 1490 0004 3439 5220



FPC report

Nancy Fagan to: Marcia Moncrieffe, Frances Verhalen

03/23/2012 04:03 PM

From:

Nancy Fagan/R6/USEPA/US

To:

Marcia Moncrieffe/R6/USEPA/US@EPA, Frances Verhalen/R6/USEPA/US@EPA

open the second attachment - that CMS progress report should suffice for RMP acceptance. Also, I found email I sent to FPC where I sent the draft April 24th letter to them for management review. I will send it next.

---- Forwarded by Nancy Fagan/R6/USEPA/US on 03/23/2012 04:01 PM -----

From: To: "Matt Brogger/FTEHSF" < MattB@ftpc.fpcusa.com>

Doto:

Nancy Fagan/R6/USEPA/US@EPA

Date: Subject: 05/22/2009 02:31 PM Monthly Updates

Nancy

Attached is the IM monthly update and CMS bi-monthly update.

Thanks.

Matt Brogger Formosa Plastics Corporation, Texas EH&S Department Phone: (361) 987-7468

Fax: (361) 987-2363

<<IM April 2009.pdf>> <<April - May 2009.pdf>>

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information for direct marketing purposes or for transfers of data to third parties. IM April 2009.pdf

April - May 2009,pdf



Formosa Plastics Corporation, Texas 201 Formosa Drive • P.O. Box 700 Point Comfort, TX 77978 Telephone: 361-987-7000

Fax: 361-987-2363

May 22, 2009

Via e-mail:

Ms. Nancy Fagan
Project Manager
6PD-0
U. S. Environmental Protection Agency
1445 Ross Avenue
Dallas, TX 75202-2733

RE: Corrective Measures Study Progress Report RCRA Docket No. VI-001(h)-90-H 3008(h) Administrative Order on Consent EPA I. D. No. TXT490011293 Solid Waste Registration No. 31945

Dear Ms. Fagan:

As per Section IV, Task X, Paragraph A of the Corrective Action Plan, FPC-TX is submitting the bi-monthly progress report for the Corrective Measures Study. Additionally, the progress report format has been modified per your letter dated July 6, 2007.

Meetings and Conference Calls

15 April

- A call between FPC-TX, Tetra Tech and EPA took place to discuss submitting a Risk Management Plan in lieu of the Corrective Measures Study. An official letter dated April 24, 2009 followed and formally requested the RMP.

CMS Activities at FPC-TX

- Tetra Tech continues to work on identifying the most effective technology to implement in the ground water treatability study to be performed in the old Waste Water Treatment Plant. To date this project remains on schedule.

Planned CMS Activities for the next reporting period

- FPC-TX is currently receiving bids to complete the Risk Management Plan and have a consultant assist in working through the Corrective Action Objectives.



Should you require additional information or assistance please contact Matt Brogger at (361) 987-7468 or by e-mail at mattb@ftpc.fpcusa.com.

Sincerely,

R. P. Smith

Vice President/General Manager Formosa Plastics Corporation, Texas cc:

Ms. Susan Clewis TCEQ, Region 14 6300 Ocean Drive, Suite 1200 Corpus Christi, TX 78412 Certified Mail: 7007 1490 0004 3439 5237

Ms. Karen F. Scott, P.G.

TCEQ.

I&HW Permits Section

P.O. Box 13087

Austin, TX 78711-3087

Certified Mail: 7007 1490 0004 3439 5244

Ms. Merrilee Hupp, (MC-169) TCEQ P.O. Box 13087

Austin, TX 78711-3087

Certified Mail: 7007 1490 0004 3439 5251



REGION 6 1445 ROSS AVENUE, SUITE 1200 DALLAS, TX 75202-2733

April 24, 2009

Mr. R.P. Smith Vice President/General Manager Formosa Plastics Corporation, Texas P.O. Box 700 Point Comfort, Texas 77978

RE: Approval of the Treatabilility Study Schedule and clarification on final corrective action report submittals for Administrative Order on Consent (AOC) Docket #VI - 001(h)-90-H

Dear Mr. Smith,

On July 6, 2007 EPA sent a letter to your facility which formally outlined the reports needed as part of the phased draft Corrective Measures Study (CMS). The first phase was the investigation report from the former Brookings property to determine if the groundwater plume in Zone A extended to this area. Phase 1 was approved on November 16, 2007. The final Current Conditions Technical Memorandum (CCTM phase 2) was submitted on August 1, 2008 and formally approved on September 9, 2008.

The EPA is in receipt of the draft schedule for the final phase of the CMS (the Treatability Study) and formally approves the schedule with this letter. At this point in time, EPA would like to request that FPC submit a Risk Management Plan (according to the Region 6 Corrective Action Strategy) in lieu of the final CMS report. The Risk Management Plan will present the conceptual site model and the agreed upon Corrective Action Objectives and will suffice for remedy selection based upon performance standards. FPC will have 120 days to submit the RMP, per the date of this letter, April 24, 2009.

If you have any questions or concerns, please feel free to contact me at 214.665.8385.

Nancy Fagan

Project Coordinator

cc:

Ms. Susan Clewis

TCEQ Region 14

Ms. Lalitha Asirvadam TCEQ Austin

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REGION 6 1445 ROSS AVENUE, SUITE 1200 DALLAS, TX 75202-2733

September 9, 2008

Mr. R.P. Smith Vice President/General Manager Formosa Plastics Corporation, Texas P.O. Box 700 Point Comfort, Texas 77978

RE: Approval of the Final Current Conditions Technical Memorandum (CCTM) Phase 2 CMS for the Administrative Order on Consent (AOC) Docket #VI – 001(h)-90-H

Dear Mr. Smith,

On July 6, 2007 EPA sent a letter to your facility which formally outlined the reports needed as part of the phased draft Corrective Measures Study (CMS). The first phase was the investigation report from the former Brookings property to determine if the groundwater plume in Zone A extended to this area. Phase 1 was approved on November 16, 2007.

The draft Current Conditions Technical memorandum (phase 2) was completed on May 28, 2008 and our scoping meeting was held onsite the week of June 10, 2008. Some data gaps were resolved, and the final CCTM was delivered on August 1, 2008. The purpose of this letter is to formally approve the final CCTM (phase 2) which will initiate the beginning of the phase 3 CMS -a Treatability Study or pilot project to test the applicability of in-situ treatment of contaminants as a final remedy for contaminated soils and groundwater at FPC. After completion of the Treatability Study, FPC will have 120 days to submit the final CMS report.

If you have any questions or concerns, please feel free to contact me at 214.665.8385.

Nancy Fagan

Project Coordinator

cc:

Ms. Susan Clewis

TCEQ Region 14

Ms. Katherine Nelson, MC-130

TCEQ Austin

Ms. Lalitha Asirvadam

TCEQ Austin



REGION 6, 1445 ROSS AVENUE, SUITE 1200 DALLAS, TX 75202-2733

November 16, 2007

Mr. R.P. Smith Vice President/General Manager Formosa Plastics Corporation, Texas P.O. Box 700 Point Comfort, Texas 77978

RE: Approval of the October 2007 Stage 1 Groundwater Investigation Report Former Brookings Property for the Administrative Order on Consent (AOC) Docket #VI – 001(h)-90-H

Dear Mr. Smith,

On July 6, 2007 EPA sent a letter to your facility which formally outlined the reports needed as part of the phased draft Corrective Measures Study (CMS). The first phase was the investigation report from the former Brookings property to determine if the groundwater plume in Zone A extended to this area. The Former Brookings Property Investigation Report was submitted to EPA 60 days after completion of field work. The purpose of this letter is to formally approve this report. With this approval, the draft phase 2 CMS report will be the Current Conditions Technical memorandum which is due within 60 days of receipt of this letter.

Upon completion of the Current Conditions Technical memorandum, EPA's expectation is to have a meeting at FPC to discuss the updated conceptual site model, and formalize our final cleanup goals. FPC will then start on the draft phase 3 CMS which will be a Treatability Study. After completion of the Treatability Study, FPC will have 120 days to submit the final CMS report. Please be advised that it is paramount to the success of getting to a final remedy at FPC that this schedule is adhered to in a conscientious way. If you have any questions or concerns, please feel free to contact me at 214.665.8385.

Nancy Fagan

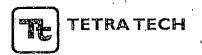
Project Coordinator

cc:

Ms. Susan Clewis

TCEQ Region 14

Ms. Katherine Nelson, MC-130 TCEQ Austin office



Austin Office 7800 Shoel Creek Blvd. Suite 253 East Austin, 1X 78757 Tel 512,338,1667 Fax 512,338,133

Memorandum

To:

Matt Brogger

From: Eric Klink

Company:

Formosa Plastics Corporation - Texas

Date: July 5, 2007

Re:

Proposed Action Items and Schedule

Project #:020794

PRIVILEGED AND CONFIDENTIAL

As we have discussed several times, there are a series of data gaps regarding the SWMUs (soil) and groundwater at the FPC-TX facility that need to be resolved in order to prepare a Corrective Measures Study (CMS) that provides a useful and accurate evaluation of corrective action alternatives. In our recent discussions with Nancy Fagan, USEPA Region VI Project Coordinator, Nancy agreed and suggested that we propose a series of actions and associated schedule to resolve those data gaps and move the project closer to selection of a final corrective action. The following paragraphs describe an approach to segregate the project into smaller, more manageable subtasks and gain agency approval of the various deliverables as we proceed. Table 1 and Figure 1 attached provide a broad schedule for performance of each of the actions described below.

Former Brookings Property Stage 1 Investigation Report

The Former Brookings Property Stage 1 Investigation is anticipated to start in July and the report should be completed by the end of September 2007. The intent of this investigation is to bound the downgradient portion of the groundwater plumes present in Zone A. Based on the results of the work performed, FPC-TX will have a clearer understanding of the extent of the Zone A plume and the associated potential exposure pathways.

Current Conditions Technical Memo

The first subtask identified in the CMS Scope of Work in the 3008(h) Order (Task VII, subtask A) is preparation of a Description of the Current Situation. Preparation of a "Current Conditions Technical Memo" would be used to document the conceptual site model, develop corrective action levels, and to clearly document the current status of each SWMU. In addition, if information assembled for the technical memo indicates the obvious merits of cost-effective accelerated action at certain specific SWMUs, these activities will be proposed in the Current Conditions Technical Memo.

Mr. Matt Brogger July 5, 2007 Page 2 of 3

Conceptual Site Model and Development of Corrective Action Levels

Corrective action levels are required to properly identify the area and volume of soil and groundwater that require corrective action. Corrective action levels are risk-based numerical values developed based on potentially complete exposure pathways, e.g., construction worker exposure to impacted soil, or off-site residential exposure to groundwater. Although the RFI presented a good summary of land use in the vicinity of the facility, it does not clearly identify the complete or potentially complete exposure pathways associated with chemicals of potential concern identified at each SWMU and in the groundwater plumes:

The results of the Former Brookings Property Stage 1 Investigation in conjunction with the conceptual site model will be used to develop corrective action levels. Assuming that impacted groundwater is not discharging to Cox's Creek, an area similar to a TRRP Plume Management Zone (PMZ) will be identified. Based on the PMZ, groundwater hydrogeology characteristics, and the potentially complete exposure pathways identified in the conceptual site model, action levels for both groundwater and soil will be developed. The technical memo will document the mechanics and assumptions utilized to develop the action levels.

Current SWMU Status

As we have discussed, there is some confusion regarding the status of some of the SWMUs due to conflicts between the RFI and the January 2007 approval letter from USEPA, as well as changes to Texas cleanup criteria from Risk Reduction Rules to TRRP. Preparation of a Current Conditions Technical Memo would serve to clearly document the status of each SWMU.

Accelerated SWMU Closure (Specific Areas)

Depending upon the results of the survey and the information posited for the Current Conditions Technical Memo; FPC-TX may elect to move toward immediate closure of certain specific SWMUs. Based on a review of the available survey information, the base of three of the five impoundments may be directly above or actually slightly below the top of the Zone A groundwater, thus there may be no unsaturated impacted soil to address in these areas. The Surge Basin and Emergency Basin appear to be the only impoundments constructed above the groundwater. Current estimates indicate that as little as 4,500 CY of impacted unsaturated soil may be located in these areas. If completion of the Current Conditions Technical Memo confirms the presence of relatively small volumes of impacted unsaturated soil, Formosa may elect to move forward with a SWMU closure program consisting of excavation and disposal in order to mitigate potential on-going sources to groundwater.

The Current Conditions Technical Memo will be initiated concurrently with the Former Brookings Property Investigation, and completed within 60 days of EPAs approval of the Former Brookings Property Investigation Report. Upon its completion and approval, Formosa will have adequate information to determine if closure of specific SWMUs is appropriate as an interim step to mitigate highly impacted soil as an on-going source to groundwater (See action item "SWMU Closure" below).

Mr. Matt Brogger July 5, 2007 Page 3 of 3

SWMU Closure

In the event that FPC-TX elects to move toward accelerated closure of specific SWMUs, work will be initiated upon EPA approval of the Current Conditions Technical Memorandum and completed within 360 days. Activities will include development and EPA approval of closure work plans, engineering design documents, confirmatory sampling plans, safety plans, bid documents and contracting activities.

Conduct Treatability Studies

Upon completion of the Current Conditions document, FPC-TX will have adequate information available to begin evaluating potentially applicable corrective action alternatives. In the event that in situ treatment or specialized ex-situ treatment alternatives appear to be technologically feasible and economically viable, bench and pilot scale treatability studies will likely be necessary to develop adequate information to fully assess each alternative. If warranted, performance of treatability studies will include preparation of work plans for agency review and approval, completion of both bench- and field-scale treatability tests, and preparation and submittal of testing results. It is anticipated that FPC-TX will require approximately one year to complete these tasks including initial alterative identification, treatability study and contractor selection, development and approval of appropriate work plans, implementation of pilot studies and appropriate post study sampling and analysis, and preparation of appropriate technical reports

Corrective Measures Study

Upon completion and approval of the tasks outlined above, FPC will have adequate data to complete the CMS in accordance with the Scope of Work decribed in the 3008(h) Order. FPC will complete the CMS within 120 days of EPAs approval of the Treatability Study Report.

Summary

The activities described above are intended to describe an approach to resolve data gaps, segregate the project into smaller, more manageable subtasks and gain agency approval of the various deliverables as we proceed in order to move the project closer to selection of a final corrective action. Table 1 and Figure 1 attached provide a broad schedule for performance of each of the actions.

TABLE 1 Summary of Action Items and Schedule

Former Brookings Property Stage 1 Investigation Report

- > Complete report 60 days after completion of field activities
 - Complete field activities
 - Prepare summary report

Current Conditions Technical Memo

- > Complete 60 days after EPA approval of Brooking Stage 1 Report
 - Identify exposure pathways (Conceptual Site Models)
 - Clarify SWMU status
 - Complete updated survey.
 - Correlate soil sample, impoundment, and GW elevations
 - Propose accelerated action at specific SWMUs (as warranted)
 - Estimate impacted soil volumes
 - Identify PMZ (or similar)
 - Calculate corrective action levels
 - Prepare and submit memo

SWMU Closure (Specific Impoundments)

- If decision is to accelerate closure of specific impoundments, complete work within 360 days, after EPA approval of Current Conditions Technical Memo
 - Prepare Closure Plans for EPA Approval
 - Formosa receives bids and awards field work
 - Complete field activities
 - Prepare and submit summary report

Conduct Treatability Studies

- > Complete 360 days after EPA approval of Current Conditions Technical Memo
 - Identify potentially applicable alternatives and associated engineering data gaps
 - Identify applicable treatability studies required to fully assess potential alternatives
 - Prepare Work Plans
 - EPA approval of Work Plans
 - Formosa receives bids and awards field work
 - Complete field activities
 - Prepare and submit summary report

Corrective Measures Study

> Complete 120 days after completion and approval of treatability study activities



REGION 6 1445 ROSS AVENUE, SUITE 1200 DALLAS, TX 75202-2733

January 8, 2007

Mr. R.P. Smith Vice President/General Manager Formosa Plastics Corporation, Texas P.O. Box 700 Point Comfort, Texas 77978

RE: Advancing Requirements for the Administrative Order on Consent (AOC) Docket #VI - 001(h)-90-H

Dear Mr. Smith,

As new Project Coordinator to the above-referenced Order, I am advancing corrective action requirements for the Formosa Plastics Corporation (FPC) facility, as stated in the February 14, 1994 AOC by incorporating the following approval, as specified in Amendment No. 1 Section L. EPA Approvals/Disapprovals.

The final RCRA Facility Investigation Report (RFI) was submitted to EPA on May 1, 1998. As per this letter, this report is officially approved. With this approval, I am also including the "Project Plan and Timeline" Report submitted February 1, 2005 as an Addendum to the RFI report. The approval of these reports includes recommended changes outlined below;

- To address sources of EDC, EPA recommends actively pursuing the treatment, containment or removal of source material from the following inactive units; the four SWMUs in the inactive WWTP area, and the six SWMUs located in the VCM/Storm Water Basin Area. This activity will include <u>final closure for all Interim Status units at FPC</u>. Plans to address these areas will be outlined in the Corrective Measures Study.
- 2) Address groundwater investigation activities at the former Brookings property to delineate extent of the plume. This groundwater investigation should be designed to collect sufficient data to define the nature and extent of contaminants present to the level necessary to assess risk and select appropriate remedial measures. The investigation should begin with the approval of a site-specific workplan. The proposal of remedial measures will be included in the <u>Corrective Measures Study</u>.

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- 3) Changes made to the groundwater monitoring program verbally approved on December 31, 2002 are officially approved; however, I would like to suggest that we have a conference call to discuss how we can <u>optimize groundwater</u> <u>recovery</u> (based on the improved conceptual site model) and streamline the reporting process.
- 4) Submittal of progress reports will be changed to electronic submittals only.
- 5) As stated in the Order, (Section IX.) corrective action will be completed in accordance with the CAP and in accordance with EPA guidance documents determined by EPA to be relevant. At this point, I would like to use the EPA Region 6 Corrective Action Strategy (CAS) as the relevant guidance document to assist in streamlining the corrective action at FPC.
- 6) As such, the <u>Corrective Measures Study</u> report shall be designed to address risk management at FPC and will include FPC's proposed site-wide remedies for corrective action. This report should include an <u>updated conceptual site</u> <u>model</u> with <u>proposed remedies and performance monitoring</u>.
- 7) As part of the issue of treatment of recovered groundwater, I would like to investigate options for either 1) getting a "contained out" determination (this would be through TCEQ), or 2) changing to an in situ treatment process so that groundwater is not recovered. Options to address this issue can be presented in the Corrective Measures Study.

With the approval of the Corrective Measures Study, EPA will create a report known as the Statement of Basis, which clearly defines the final remedy for FPC and allows the public to comment. After the public comment period, EPA will create a Response to Comments/ Final Decision (RTC/FD) document that will incorporate final public comments. With the submittal of the RTC/FD, FPC will submit either a Corrective Measures Design, or a Corrective Measures Implementation Report. Upon approval of this report, the EPA Order will be terminated.

Since the final remedy will address the long term remediation/monitoring of groundwater, EPA will suggest to TCEQ that the 1993 State Agreed Order be terminated upon approval of the final remedy.

If you have any questions or concerns, please feel free to contact me at 214.665.8385.

Nancy Fagan

Project Coordinator

nfagan/1-08-07

cc: Ms. Susan Clewis
TCEQ Region 14
6300 Ocean Drive, Suite 1200
Corpus Christi, TX 78412

Mr. Murali Padaki, MC-127 TCEQ P.O. Box 13087 Austin, TX 78711-3087

Ms. Katherine Nelson, MC-130 TCEQ P.O. Box 13087 Austin, TX 78711-3087



REGION 6 1445 ROSS AVENUE, SUITE 1200 DALLAS, TX 75202-2733

July 6, 2007

Mr. R.P. Smith Vice President/General Manager Formosa Plastics Corporation, Texas P.O. Box 700 Point Comfort, Texas 77978

RE: Schedule for the Corrective Measures Study in the Administrative Order on Consent (AOC) Docket #VI - 001(h)-90-H

Dear Mr. Smith,

On January 8, 2007 EPA sent an approval letter to your facility which formally approved the RFI report submitted in May 1998. As mentioned in this letter and the AOC, the next report due to the EPA is the Corrective Measures Study. Upon review of the current status of corrective action and conference calls with the Formosa Plastics Corporation (FPC) representatives, it is apparent that the final Corrective Measures Study (CMS) needs to be predicated by the following three items. (The three documents described below will be considered the draft CMS, as presented in a phased approach.)

First, an investigation report from the former Brookings property is needed to determine if the groundwater plume in Zone A extends to this area. The Former Brookings Property Investigation Report will be submitted to EPA 60 days after completion of field work. Secondly, FPC needs to present an updated conceptual site model with current SWMU status, recommendations for media specific cleanup levels and SWMU closures that require minimal resources and cost. This information may be presented in a Current Conditions Technical memorandum. The last report needed is a Treatability Study. Due to recent advancements in remediation technology, there is a significant chance that chemicals of concern at FPC may be treated in-situ or ex-situ with re-injection, thereby eliminating the need for pumping and treating. EPA anticipates that FPC will need approximately one year to complete the third phase, which includes the bench- and field-scale treatability tests, and documentation of results in a Treatability Study report.

Upon completion of the Treatability Study, FPC will have 120 days to submit the final CMS report. Progress reports for the phased CMS will be prepared every two months, and submitted via email.

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The presentation of this schedule supplants the schedule outlined in Task X of the AOC. If you have any questions or concerns, please feel free to contact me at 214.665.8385.

Nancy Fagan

Project Coordinator

Ms. Susan Clewis

TCEQ Region 14

6300 Ocean Drive, Suite 1200

Corpus Christi, TX 78412

Mr, Murali Padaki, MC-127

TCEQ

P.O. Box 13087

Austin, TX 78711-3087

Ms. Katherine Nelson, MC-130

TCEQ

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Austin, TX 78711-3087

nfagan/7-06-07

PHONE Addk. NAME HARLES BARNES 6EN-HX 214-665-6555 US EPAREgion 6 1445 Ross Ave DALLAS, TX 75202 FORMOSA PLANTICS BOB WALLACE 361-987-7440 361-987-1900 Jack Wu Bandy Swith Bat New art Kelly Hart 512-495-4426 Glen Smith 4402 LAUREN LANC 972-240-5982 GAILLAND, TX 75043 Millard M. Brooking 3104 La Vista Ave. 919-245-3480 Bay aty, Tx, 774/4 MILLARD B. HROOKINA 903-852-6977 BOX 130

CHANDLER TX 75758

Subject to the execution of a written contract, the undersigned heirs of M.T. Brooking and Millard M. Brooking agree to sell and convey to Formosa Plastics Corporation, Texas ("Formosa") by General Warranty Deed and Formosa agrees to purchase that certain property described in Exhibit A pursuant to the following terms:

- 1. The purchase price is Two Thousand Three Hundred Dollars (\$2,300.00) per acre based upon field notes of survey.
- 2. Formosa will pay costs of survey, title insurance and escrow costs, and other expenses of closing (pro ration of taxes is not an expense).
- 3. The conveyance will reserve all oil and gas ("mineral") rights owned by Grantors.
- 4. No warranty on this property (as is, with all faults) except that of title.
- 5. Formosa will be responsible for rollback taxes, if any.
- 6. Formosa will honor the existing surface lease.
- 7. Formosa will have the right to inspect the property for fifteen (15) days from execution of the written contract.
- 8. This non-binding expression of intent shall expire if a written contract has not been executed within 90 days from the date hereof.
- 9. Earnest money at execution of contract paid by Formosa is Thirty-Five Thousand Dollars (\$35,000.00), to be deposited with Texas title Co. or other company of Buyer's choice.

HEIRS OF MILLARD M. BROOKING

FORMOSA PLASTICS CORPORATION, TEXAS

Bv:

Keith Brooking

3408 Cherry Lane

Bay City, TX 77414

sy_____

Randall P. Smith

Vice President, General Manager

687368_1

Diane Blackley (by Charles) P.O. Box 244 Alpine, TX 78981

Deborah Smith (by Glen)

4402 Lauren

Garland, TX 75043

Linda Roberts (by Keith) 3251 Hunter's Glen Drive

Missouri City, TX 77459

Joan Roselli (by Keith)

2301 S. Millbend, Apt. 2103

The Woodlands, TX 77380

Millard B. Brooking Box 130

Chandler, TX 75758

687368_1

By:

Laura B. Lewis (by Millard B. Brooking)

2508 Great Oaks Parkway

Austin, TX 78756

By:

Anita Brooking O'Mara (by Millard B. Brooking) 502 Gair Road

502 Gair Road Piermont, NY 10968

By

Carl B. Brooking (by Millard B. Brooking)

231 Greenfield Road Brandon, MS 39042

Millard M. Brooking (Individually)

3

• •		
ROPERTY: The Property is situated in	CALHOUN	County, Texas, described as follows
250.25 acres being comprised of the follow		
CCAD R# 14787	7 Thomas Con CCAD 0# 07/	10
[2] 198.00 acres, Tract part 1, Abstract 10	J, INOMAS COX, CCAD K# 2/6	02
[3] 46.20 acres, Tract part 3A, Abstract 1		
[4] 5.60 acres, Tract part 1, Abstract 11, 1	Philip Dimmitt, CCAD R# 2740)5
Located on Highway 35		•
* PROPERTY: The Property is situated in	CALHOUN	County, Texas, described as follows:
47.40 acres, Tract part of 1, Abstract 11, P	hillp Dimmit - CCAD R# 2738	3
4.40 acres, Tract part 3A, Abstract 10, The	omas Cox - CCAD R# 27896	
TOTAL OF 51.8 ACRES		
Located on Highway 35		



FORMOSA PLASTICS CORPORATION, TEXAS

ISO-9002 CERTIFIED ISO-14001 CERTIFIED OS-9000 CERTIFIED P. O. BOX 700 201 FORMOSA DRIVE POINT COMFORT, TX 77978 DIRECT PHONE: 361-987-7560 DIRECT FAX: 361-987-7558

August 30, 2004

VIA FACSIMILE AND CERTIFIED MAIL

Charles A. Barnes
Project Coordinator
Technical Section (6EN-HX)
Compliance Assurance and Enforcement Division
U.S. EPA, Region 6
1445 Ross Avenue
Dallas, Texas 75202

Re: RC

RCRA Docket No. VI - 001(h)-90-H 3008(h) Administrative Order on Consent EPA I.D. No. TXT490011293

Dear Mr. Barnes:

This letter is in response to your letters dated August 18, 2004 regarding the above referenced Administrative Order. The purpose of this letter is to notify you pursuant to Section IX. G.1. (Dispute Resolution) of the Order that Formosa Plastics Corporation, Texas ("Formosa") disputes the requirements set forth in your letters, as well as the deadlines provided. Specifically, Formosa disputes the statements in your letters that expansion by Formosa's acquisition of the property north of the original facility results in the whole facility being covered by the existing compliance order and that; therefore, corrective actions must be applied to this northern area as well as the old facility. Formosa also disputes the requirement to update the RCRA Facility Investigation report to include the expansion.

Our legal counsel has advised us that your attempt to expand the reach of the Order is legally insupportable for at least two reasons. First, the 1990 Order contains no provisions regarding application of the Order to expansions of the facility. Section VII. A. of the Order, of course, does define Formosa as a facility. However, that definition cannot be read to encompass something that did not exist at the time the Order was signed. The Order is very specific with respect to what it covers with the Corrective Action Plan attached to the Order actually listing the solid waste management units and mentioning the various types of equipment at the facility. Moreover, the description of the facility in Section VI clearly only includes the facility as it existed at the time of the Order. As a legal matter, the definition of "facility" must be applied to the facts as they existed when the Order was signed. Any other interpretation is not legally supportable.

TCEQ 0804

Second, even considering the facility as it is today, the northern portion is not part of the hazardous waste facility. The 3008(h) Order is an interim status order which was issued because EPA alleged that Formosa had been storing hazardous wastes more than 90 days. (Subsequently it has been determined by EPA that this material is, in fact, not waste). The Order required Formosa to file a Part A for interim status as a hazardous waste storage facility because of this material. That Part A was filed for the southern portion of the facility. Importantly, it has never been amended to include any area north of the railroad tracks. This is because the area north of the railroad tracks is not part of the interim status facility. There is no treatment, storage or disposal of hazardous waste that would require a RCRA permit north of the railroad tracks. Thus, even if the definition of "facility" were applied to the Formosa plant today, the area north of the railroad tracks would not be included.

The definition of "facility" in 40 CFR 260.10 at the time the Order was signed meant "[a]Il contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing or disposing of hazardous waste." Thus, the northern portion of Formosa's facility would not be included. The Order has no "change in law" provision and therefore must be interpreted in accordance with the law cited in the Order as it existed at the time it was signed. Therefore, subsequent amendments to the definition of the term "facility" are not relevant to what area of the Formosa facility the Order covers.

Formosa satisfied its obligations regarding facility access under Section IX. D. of the Order in that it used its best efforts to obtain access to offsite property, but those efforts were unsuccessful. Formosa objects to the requirement to now obtain access within thirty (30) days.

Formosa also disputes the requirements for a formal facility-wide corrective action plan that will accomplish five enumerated items in the letter which are beyond the requirements of the Order. EPA requests these actions by referring to Section VIII. A. 6. Additional Work. Our legal counsel has advised us that this section does not provide the requisite authority for EPA to require these actions because that section requires any additional work to be "necessary as part of the IM, RFI, and/or CMS." The Corrective Action Plan attached to the Order describes the IM, RFI and CMS and the five actions requested in your August 18 letter are not in any respect a necessary part of the IM, RFI or CMS. This is particularly true with respect to the requirement that the actions be taken facility wide as explained above.

Formosa also objects to the September 3, 2004 deadline in one of your August 18 letters. EPA has had this information for a considerable period of time and it is unreasonable to expect Formosa to respond in 10 days. Likewise, it is unreasonable to expect Formosa to respond within 30 days to the many detailed comments on the final RFI document when EPA has had that document for a considerable period of time.

As discussed above, Formosa disputes that it is required to include the facility expansion area in the RFI both because it was not part of the facility when the Order was signed and in fact it is not part of the "facility" used for treatment, storage or disposal of hazardous wastes even today.

In closing, Formosa has been working cooperatively with the Agency for approximately 13 years on this issue and we would like to continue that progress.

Sincerely,

Randy Smith

Vice President/General Manager Formosa Plastics Corporation, Texas Project Coordinator

RPS/pad Encl.

cc:

Ms. Susan Clewis TCEQ Region 14 6300 Ocean Drive, Suite 1200 Corpus Christi, Texas 78412

Mr. Conrad Kuharic, (MC-130) TCEQ P.O. Box 13087 Austin, Texas 78711-3087

Ms. Susan Johnson (MC-134) TCEQ P.O. Box 13087 Austin, Texas 7871-3087

Robert Stewart Kelly, Hart & Hallman 301 Congress, Suite 2000 Austin, Texas 78701-2944 Mr. C.L. Tseng Formosa Plastics Corp., USA 9 Peach Tree Hill Road Livingston, NJ 07039

Mr. Robert Kelley Formosa Plastics Corp., USA 9 Peach Tree Hill Road Livingston, NJ 07039

Mike Rivet Formosa Plastics Corp., Texas P.O. Box 700 Point Comfort, TX 77978

Matt Brogger Formosa Plastics Corp., Texas P.O. Box 700 Point Comfort, TX 77978



FORMOSA PLASTICS CORPORATION, TEXAS

P. O. BOX 700 201 FORMOSA DRIVE POINT COMFORT, TEXAS 77978

PHONE: 512/987-7000 FAX: 512/987-2721

July 20, 1994

Certified Mail P 040 420 956

Mr. Robert F. Silvus Head, Facility Team V Permits Section, Industrial and Hazardous Waste Division P.O. Box 13087 Austin, Texas 78711-3087

RE: Solid Waste Registration No. 31945
Part B Permit Application, RCRA Hazardous Waste Treatment
Storage and Disposal Facility
Proposed HW-50348 (proposed)

Dear Mr. Silvus:

Per the July 15, 1994 phone conversation with Mr. Greg Dennis of your staff with Mr. Steve Marwitz, FPC-Tx is requesting that further consideration of the referenced Part B Permit Application be temporarily suspended. This request will continue until the time the application can either be withdrawn or revised to reflect post closure care for the interim status facility wastewater treatment surface impoundments.

The below historical summary is provided to document events pertaining to this particular permit:

- o February 27, 1991 FPC-Tx signs EPA 3008(a) Order requiring submittal of Part A and B Permit Application for hazardous waste management units owned and operated at the Point Comfort facility. Due to the Order, it is understood that Interim Status is now applied to the eight surface impoundments and tanks VT-763 A & B.
- May 24, 1991 Part A Permit Application submitted to TWC. Eight surface impoundments, tanks VT-763 A & B, tank VV-102, and a drum storage area are included in Table III-4. VV-102 and the drum storage area were added as additional units that FPC-Tx wanted to ultimately operate greater than 90 days. TWC/TNRCC review of Part A Permit Application never received.

- o September 5, 1991 Part B Permit Application submitted to TWC. FPC-Tx proposed to remove the eight surface impoundments and tanks VT-763 A & B from the Part A Permit Application and not include them in the Part B Permit Application because Closure Plans were written for the units and they were to become inactive pending completion of closure activities. Because FPC-Tx was expecting the future need for greater than 90 day storage capacity, other new tanks and storage units were added to the Part B Permit Application. Plans were to operated the units as less than 90 day units until the permit was approved.
- o October 21, 1991 and January 25, 1993 letters received from the TWC Chief Clerk acknowledging receipt of the Part B Permit Application.
- o December 15, 1992 letter received from TWC approving the Interim Closure Certification Report, for partial closure of tanks VT-763 A & B, as a Closure/Corrective Measures Implementation Report. TWC recommends that further corrective action of these RFI units be conducted by the EPA.
- o June 29, 1993 Administrative Review of the Part B Permit Application received.
- August 20, 1993 TWC permit technical reviewer Greg Dennis visits FPC-Tx to tour proposed permit units. First discussions held concerning the "real" need for Part B permitted units at FPC-Tx. Only capacity to store Heavy Ends prior to shipment off-site was an issue. Should receiving source reduce orders for heavy ends, greater than 90 day storage would be needed.
- o October 9, 1993 Administrative Review response deliverables submitted to TWC.
- May 6, 1994 Part B Permit Application Technical Review NOD letter received from the TNRCC giving 30 days to respond. Capacity problem for heavy ends storage resolved at FPC-Tx through additional tankage and source reduction practices. However, to maintain Interim Status on the surface impoundments, prior to approved closure, the Part B Permit Application must remain active. Solution discussed with Mr. Minor Hibbs, via Mr. Greg Dennis, was to get the surface impoundment closure plan approved by the TNRCC Closure Section and then have FPC-Tx withdraw the Permit Application.

- May 12, 1994 FPC-Tx submits letter to TNRCC Permit Section requesting 60 day extension to the May 6 NOD letter deliverable deadline. It is hoped by TNRCC and FPC-Tx that the surface impoundment closure plan will have been reviewed and approved by the TNRCC Closure Section.
- o May 26, 1994 deadline extension, till August 4, 1994 approval letter received from TNRCC.
- O July 13, 1994 phone call with Luis Campos of the TNRCC Closure Section indicates that closure plan approval time will be extended until FPC-Tx conducts pre-closure investigation and specifics on how closures will proceed are obtained. A determination as to if a post closure care permit is needed will be determined at that time.

Due to the above circumstances, FPC-Tx requests that the Part B Permit Application review be temporarily suspended until the application is revised for post closure care or withdrawn by FPC-Tx.

Please call Mr. Steve Marwitz at (512) 987-7447 if you have any further questions or clarifications.

Sincerely,

W. Ken Mounger

Vice President/General Manager

KWM/SRM/srm

cc: Laurie King

U.S. Environmental Protection Agency

Region 6

1445 Ross Avenue, First Interstate Bank

Dallas, Texas 75202-2733

Vincent Malott (6H-CX)

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Carlton Stanley, Manager Texas Natural Resource Conservation Commission 4410 Dillon Lane, Suite 47 Corpus Christi, Texas 78415-5326 cc: (cont'd)
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 Texas Natural Resource Conservation Commission]
 P.O. Box 13087
 Austin, Texas 78711-3087

Luis Campos Closure Section Texas Natural Resource Conservation Commission] P.O. Box 13087 Austin, Texas 78711-3087

Bill Grimes
Financial Assurance Section
Texas Natural Resource Conservation Commission]
P.O. Box 13087
Austin, Texas 78711-3087



Formosa Plastics Corporation, Texas

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Telephone: 361-987-7000 Fax: 361-987-2363

January 25, 2010

Certified Mail: 7008 1830 0000 9431 0529

Ms. Nancy Fagan
Project Manager
6PD-O
U. S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

RE: RCRA Docket No. VI-001-(h)-90-H

3008 (h) Administrative Order on Consent 4th Quarter Interim Measures Ground Water Monitoring Report and GWQAP, 2009

Dear Ms. Fagan:

Please find enclosed your copy of the 4th Quarter 2009 Interim Measures Ground Water Monitoring Report and Ground Water Quality Assessment Plan Annual Report prepared by Tetra Tech. The Annual Ground Water Quality Assessment Plan Report has been combined with the Quarterly Interim Measures Report to conform to EPA's paper work reduction act and the TCEQ's waste minimization goals.

Should you have any questions, please contact Matt Brogger at (361) 987-7468 or by email at mattb@ftpc.fpcusa.com.

Sincerely,

R. P. Smith

Vice-President / General Manager Formosa Plastics Corporation, Texas

Enclosure





cc: Ms. Merrilee Hupp, (MC-169)

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TCEQ Enforcement Branch

Industrial Hazardous Waste Division

P. O. Box 13087

Austin, Texas 78711-3087

Ms. Susan Clewis TCEQ Region 14 NRC Building, Suite 1200 6300 Ocean Drive, Unit 5839 Corpus Christi, Texas 78412-5839 Certified Mail: 7008 1830 0000 9431 0543



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March 28, 2014

Via e-mail and Certified Mail: 7012 3460 0001 7691 1158

Ms. Nancy Fagan
Project Coordinator
6PD-O
U. S. Environmental Protection Agency
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

RE: Final Risk Management Plan

Expansion Area CAFO

Docket No. RCRA-06-2012-0938

3008(a) Consent Agreement and Final Order

EPA I. D. No. TXT490011293 Solid Waste Registration No. 31945

Dear Ms. Fagan:

As required by Section VII, paragraph 35 of the 3008(a) Consent Agreement and Final Order, Formosa Plastics Corporation, Texas is submitting the Final Risk Management Plan. This document incorporates the EPA and TCEQ comments dated February 28, 2014 that resulted from conference calls and a meeting held in Austin on February 20, 2014.

If you have any questions about this report, please contact Matt Brogger at (361) 987-7468 or by e-mail at mattb@ftpc.fpcusa.com.

Sincerely

R. P. Smith

Vice President/General Manager Formosa Plastics Corporation, Texas

Attachment





cc: Ms. Maureen Hatfield, (MC-127)

TCEQ

P.O. Box 13087

Austin, TX 78711-3087

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